

REMARKS

Applicants have received the Office Action mailed October 9, 2007. Claims 2, 4, 12, 17, 27-52 and 58 have been canceled. Applicants have amended claims 3, 5, 8, 9, 13, 14 and 18, and added claim 59. Claims 1, 3, 5-11, 13-16, 18-26, 53-57 and 59 are pending, of which claims 1, 3, 5, 13, 18, 53 and 59 are independent. Applicants request reconsideration of the pending claims in view of the amendment and the following remarks.

Summary of Examiner Interview

Applicants appreciate the courtesies extended by Examiner Pardo during the telephone interview of February 13, 2008. During the telephone interview, Applicants' representative ("Applicants") and the Examiner discussed dependent claims 3, 5, 13 and 18 vis-à-vis the cited references, and also discussed independent claim 1. Applicants appreciate the Examiner's tentative agreement that the cited references do not describe or suggest dependent claim 3 and further appreciate the Examiner's agreement to reconsider dependent claim 3 based on this written response, as well as to reconsider dependent claims 5, 13 and 18—which Applicants asserted also are patentable over the cited art in their current form. In this response, as outlined in greater detail below, claims 3, 5, 13 and 18 have been rewritten in independent form.

Remarks regarding inadvertently introduced typographical errors in the previously filed response

Applicants discovered that typographical errors were inadvertently introduced in the last response, apparently due to an issue in an optical character recognition process associated with transferring the paper file from another firm to the undersigned. The errors are explained with reference to claim 2:

Claim 2, from the November 21, 2006, Amendment, which was entered following the RCE filed December 21, 2006:

2. (Currently Amended) The method of claim 1 wherein the data associated with the first ~~search related~~ query comprises a total selection score for the first ~~search related~~ query.

Claim 2, from July 18, 2007,
Amendment (in which errors were
introduced):

Inspection of these two versions of
claim 2 clearly reveals that claim 2
in the July 18, 2007, Amendment
should have read:

2. (Currently Amended) The computer-implemented
method of claim 1, wherein the data associated with the
first search query comprises a total selection score for the
first search dated query.

2. (Currently Amended) The computer-implemented
method of claim 1, wherein the data associated with the
first search query comprises a total selection score for the
first search query.

Since the typographical error in the claim listing provided in the July 18, 2007, Amendment was not marked as an amendment, and thus should not have been entered as such, the claim listing in this document includes markings relative to the correct version of the claims (i.e., the claims without this typographical error). The above-described typographical error (“first search ~~related~~ query” presented as “search dated query” rather than as “search query”) also appeared in claims 11, 17, 27, 34, 39 and 53 of the claim listing in the last response, and this error has likewise been corrected in these claims as well. (Note that in some instances, the error was “search dated-
query” rather than “search dated query” (i.e., hyphenated)).

Applicants believe that this makes the record clear and appropriately addresses the typographical error. If the Examiner disagrees, she is invited and requested to call the undersigned to discuss appropriately effecting a correction.

Rejections—35 U.S.C. § 103

Rejections of various claims from the October 9, 2007, Office Action are reproduced below, followed by Applicants' corresponding arguments and remarks.

Claim 3

The Examiner rejected claim 3 as follows:

As to claim 3, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that the total selection score comprises a total number of users that selected a result returned for a search for the first search query [902 of fig. 10].

Since claim 3 previously depended from claims 2 and 1, the rejections of these claims are also reproduced for context:

3. Claims 1-52, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corston-Oliver et al. (Hereinafter "Corston-Oliver") US Patent No. 6,901,402 in view of Yayoi et al. (hereinafter "Yayoi") US Patent application Publication No. 2003/0149704 A1.

As to claim 1, Corston-Oliver teaches the invention substantially as claimed, comprising: receiving a first search query (first textual input, ab; fig. 3A: col. 7, lines 64-67):

receiving a second search query [second textual input, ab; fig. 3A, col. 8, lines 21-22];

identifying a relationship between the first search query and the second search query based at least in part on a criterion [determining a relationship between first and second textual inputs based at least in part on a criterion (i.e., predetermined grammatical rules), ab; fig. 3A; col. 8, lines 7 to col. 9, lines 14].

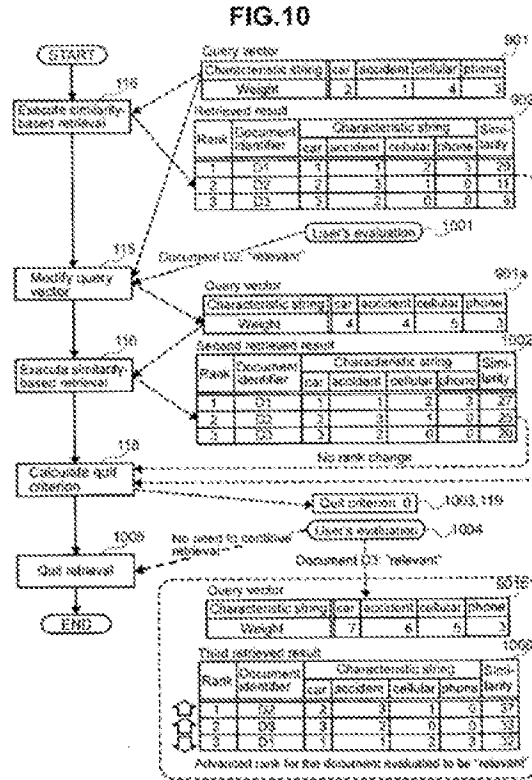
However, Corston-Oliver does not explicitly teach determining a first article associated with the second search query, determining a first ranking score for the first article based at least in part on data associated with the first search query and outputting a search result comprising the first article although it has the same functionality of determining whether any matches exist between the content word in the second textual input and the words remaining in the document of the first textual input [col. 12, lines 24-42].

Yayoi teaches determining a first article associated with the second search query [retrieving information using a second search query, see the abstract]; determining a first ranking score for the first article [ranking retrieved documents, fig. 2] based at least in part on data associated with the first search query [second search query has the first element of the First query, see the abstract; 901 and 901 a of fig. 10], and outputting a search result comprising the first article [output 006 having D1, D2 and D3 of fig. 10].

Therefore, it would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Corston-Oliver to the system of Yayoi as an essential means to optimize search operation of finding objects containing the data of interest to users.

As to claim 2, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that the data associated with the first search query comprises a total selection score for the first search query [rank for the first query, 902 of fig. 10].

For additional context, FIG. 10 from Yayoi is also reproduced:



As discussed in the telephone interview, and as the Examiner agreed to in the interview, the cited references neither describe nor suggest a “total selection score [that] comprises a total number of users that selected a result returned for a search for the first search query,” as recited in Applicants’ claim 3.

Applicants provided examples of selection scores in the originally filed specification, including the following examples:

Examples of related query data include a **selection score** for an article when associated with a related query (such as, for example, **the number of times the article has been “clicked” when returned in search results in response to a search** for the related query), a second selection score for a second article associated with the related query, and a total selection score for a plurality of articles associated with the first related query (such as, for example, the total number of clickthroughs for all or a defined number of articles when returned in search results for the related query). Other examples include the number of times the related query has been the subject of a search, the number of times search results for the related query have been shown to users, the number of times search results for the related query have included the first article, and the number of times search results for the related query shown have included the first article. Any data

associated with the related query may be included in related query data, and these are merely examples. (Originally filed specification at ¶ 0029) (emphasis added).

Paragraph 0042 of the originally filed specification provided the following additional examples:

- a total selection score for a related query q'_i , (e.g., the total number of clicks on all documents shown in response to the related query q'_i), denoted $NU(q'_i)$
 - an instance score for related query q'_i was shown (e.g., the number of times related query q'_i was received from users and/or the number of times search results for related query q'_i were shown over a defined time period), denoted $S(q'_i)$
 - a selection score for document d (e.g., number of clicks on document d) for a related query q_i , denoted $\#(d, q_i)$
 - a number of times related query q'_i and document d were shown together, denoted $S(d, q'_i)$
 - a selection score for document d for a related query q'_i in the context of query q_i denoted $\#(d, q_i, q)$
 - a total selection score for related query q'_i (e.g., number of clicks on all documents returned for related query q'_i) in the context of query q , denoted $\#(q'_i, q)$
 - a number of times related query q'_i was shown in the context of query q , denoted $S(q_i, q)$
 - a number of times related query q'_i and document d were shown in the context of query q (in the context of query q means, for example, when there is an indication that the user was looking for query q , e.g., a user first input query q and then input query q'_i as a search query, or when the user input query q or a query containing the input query q a defined time period - such as 30 minutes - before or after inputting related query q'_i), denoted $S(d, q'_i, q)$
- ...

In contrast to Applicants claim 3, the cited references only describe ranking results in the abstract, without even a suggestion of “a total number of users that selected a result returned for a search for the first query.” As the Examiner acknowledged in the current Office Action, “Corston-Oliver does not explicitly teach ... determining a first ranking score for the first article based at least in part on data associated with the first search query ...,” and FIG. 10 of Yayoi, which the Examiner relied upon to reject claim 3, shows only a table of possible results but does not describe or suggest ranking based on “a selection score ... [that] comprises a total number of users that selected a search result returned for a search.” To the contrary, Applicants read Yayoi to describe ranking based on a similarity between a document and a query. See Eq. 1 at ¶ 0008 and ¶ 0087 in Yayoi.

Accordingly, for at least the reasons presented above, Applicants submit that claim 3 is patentable over the combination of Corston-Oliver and Yayoi. To expedite prosecution, Applicants have rewritten dependent claim 3 in independent form and have canceled claim 2. Applicants request that the § 103 rejection of claim 3 be withdrawn.

Claim 5

The Examiner rejected claim 5, which depended in its previous form from claims 4 and 1, as follows:

As to claim 4, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches the data associated with the first search query comprises an instance score for the first search query [ranking D1, D2 and D3 for the first query, 902 of fig. 10].

As to claim 5, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that the instance score comprises a number of instances the first article was shown in a search result for the first search query [D1, D2 and D3 for the first query, 902 of fig. 10].

As argued in the telephone interview, the cited references neither describe nor suggest an “instance score [that] comprises a number of instances the first article was shown in a search result for the first search query,” as recited in Applicants’ claim 5.

Applicants provided examples of “a number of instances the first article was shown in a search result” in the originally filed specification—for example, at ¶¶ 0029 and 0042, portions of which are reproduced above.

The cited references only describe ranking results in the abstract, without even a suggestion of ranking based on “a number of instances the first article was shown in a search result for the first search query.” Rather, as indicated above, ranking in Yayoi appears to be based on similarity between a document and a query—see Eq. 1 at ¶ 0008 and ¶ 0087.

Applicants appreciate that Examiner’s indication that she will reconsider claim 5 in light of the above-referenced distinctions. To expedite prosecution, Applicants have rewritten dependent claim 5 in independent form and have canceled claim 4. Applicants request that the § 103 rejection of claim 5 be withdrawn.

Claim 13

The Examiner rejected claim 13, which depended in its previous form from claims 12 and 1, as follows:

As to claim 12, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that determining the first article associated with the search query comprises determining the first article associated with the search query and with the first search query [902 of fig. 10; ab].

As to claim 13, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches determining a first selection score for the first article when associated with the first search query, and wherein determining the first ranking score for the first article based at least in part on data associated with the first search query comprises determining the first ranking score for the first article based at least in part on the first selection score [901-1006 of fig. 10; ab].

As argued in the telephone interview, the cited references neither describe nor suggest an “determining a first selection score for the first article when associated with the first search query” and “determining the first ranking score for the first article based at least in part on the first selection score,” as recited in Applicants’ claim 13.

Applicants provided examples of a “selection score” as discussed with reference to claims 3 and 5—in particular with reference to ¶¶ 0029 and 0042 of the originally filed specification, portions of which are reproduced above.

Again, as argued with reference to claims 3 and 5, the cited references only describe ranking results based on similarity between a document and a query (see Eq. 1 at ¶ 0008 and ¶ 0087 of Yayoi); there is not even a suggestion of ranking based on “determining the first ranking score for the first article based at least in part on the first selection score,” as recited in Applicants claim 13.

Applicants appreciate that Examiner’s indication that she will reconsider claim 13 in light of the above-referenced distinctions. To expedite prosecution, Applicants have rewritten dependent claim 13 in independent form and have canceled claim 12. Applicants request that the § 103 rejection of claim 13 be withdrawn.

Claim 18

The Examiner rejected claim 18 as shown below. The rejection of claim 17 is also reproduced, since claim 18 depended from claim 17 and claim 1 (see above for claim 1).

As to claim 17, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that determining the first ranking score for the first article when associated with the first search query comprises determining a number of times the first article was selected when presented in search results for the first search query [902 of fig. 10; ab].

As to claim 18, Corston-Oliver and Yayoi teach the invention substantially as claimed. Yayoi further teaches that determining the number of times the first article was selected when presented in search results for the first search query comprises determining a number of clickthroughs for the first article when presented in search results for the first search query [218 of fig. 2B; fig. 9].

As a preliminary matter, the actual rejection of claim 18 is not clear, as it appears there are typographical errors in the element references/figure numbers cited. Apparent typographical errors in the rejection aside, Applicants find no description or suggestion in either Yayoi or Corston-Oliver of “a number of clickthroughs for the first article.”

Applicants provided several examples of “clickthroughs” in the originally filed specification, including, for example, in ¶¶ 0029 and 0042 of the originally filed specification, which are discussed above.

In contrast to Applicants' claim 18, FIG. 9 of Yayoi appears to be just another version of FIG. 2, which shows a “rank” and a “similarity” number, which Applicants believe are to be understood in the context of Eq. 1 and ¶¶ 0008 and 0087 in Yayoi.

Applicants appreciate that Examiner's indication that she will reconsider claim 18 in light of the above-referenced distinctions. To expedite prosecution, Applicants have rewritten dependent claim 18 in independent form and canceled claim 17. Applicants request that the § 103 rejection of claim 18 be withdrawn.

Claim 1

The rejection of claim 1 is reproduced above and discussed briefly with reference to claim 3. Applicants submit that a person of ordinary skill in the art would not understand the primary reference, Corston-Oliver, to describe or suggest (either alone or in combination with Yayoi) all elements it has been cited for. In particular, claim 1 recites, *inter alia*, “receiving a first search *query*; receiving a second search *query*; identifying a relationship between the first search *query* and the second search *query*...” As Applicants understand Corston-Oliver, only the first textual input is a query; the second textual input appears to be a document (i.e., a search *result*). See Corston-Oliver col. 5, lines 42-50.

Computer 20 determines a relationship between the first textual input (which is the query) and a second textual input (which is one or more of the documents under consideration or indexed records of those documents) and identifies those documents which have a close relationship (such as those documents which are similar in meaning) to the query and provides the identification of those documents, or the documents themselves, as an output to the user. (Emphasis added)

Applicants submit that Corston-Oliver does not even describe or suggest two different *queries* that are determined to be related. Accordingly, for at least this reason, Applicants submit that claim 1 is patentable over the combination of Corston-Oliver and Yayoi and request that the § 103 rejection of claim 1 based on this combination be withdrawn, as well as the rejections of the corresponding claims that depend from claim 1.

Claim 53

The Examiner also rejected claim 53 based on Corston-Oliver and Yayoi, and further based on Prince, as follows:

4. Claims 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corston-Oliver et al. (Hereinafter "Corston-Oliver") US Patent No. 6,901,402 in view of Yayoi et al. (hereinafter "Yayoi") US Patent application Publication No. 2003/0149704 A1, in further view of Prince US patent No. 6,877,002.

As to claim 53, Corston-Oliver and Yayoi teach the invention substantially as claimed as specified in claim 1 and 27 above. However, neither Corston-Oliver nor Yayoi teaches the feature of determining at least one quality signal for a first article from the plurality of articles, wherein the quality signal is associated at least in part with the first search query although it has the same functionality of submitting queries to search engines to find information of interest to the user. Prince teaches determining at least one quality signal for a first article from the plurality of articles, wherein the quality signal is associated at least in part with the first search query [data signal having a qualify keywords code segment for qualifying metadata if the score is equal to or greater than a predetermined threshold, col. 18, lines 14-18] and calculating a first ranking score for the first article based at least in part on the quality signal [col. 18, lines 14-18, 50-55; ab]. Therefore, it would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Prince to the Yadav-Yayoi's system as an essential means to optimize search operation of finding objects containing the data of interest to users.

Applicant submits that claim 53 is patentable over Corston-Oliver and Yayoi for at least the reasons presented above with reference to claim 1—namely, that the primary reference does not teach what the Examiner has asserted it teaches: in particular, two different *queries*. Prince was neither cited to address this deficiency, nor do Applicants find any description or suggestion

in Prince that addresses this deficiency. Accordingly, Applicants submit that claim 53 is patentable over the combination of Corston-Oliver, Yayoi and Prince, and request that the § 103 rejection of claim 53 based on these references be withdrawn, as well as the rejections of the corresponding claims that depend from claim 53.

Claims 27-52

To expedite prosecution and reduce excess claim fees in view of the amendments presented herein (and *not* for reasons related to patentability), Applicants have canceled claims 27-52. These computer program product claims corresponded to the computer-implemented method claims 1-26. The claims are canceled without prejudice, and Applicants expressly reserve the right to reintroduce these claims in this application or to present these claims in a continuing application.

New Claim

New claim 59 is presented herein. Support for the new claim can be found throughout the originally filed specification, including, for example, at ¶¶ 0013, 0014, 0017, 0019, 0021, 0024, 0033, 0037, 0040, 0041, 00111, 00112, and in the originally filed claims. Accordingly, no new matter has been added.

New claim 59 is patentable for at least the reasons presented above with reference to claim 1. New claim 59 is also patentable over the art of record for additional reasons. In particular, for example, the cited references neither describe nor suggest “receiving, *during a first time period*, a plurality of instances of a first search query and a plurality of instances of a second search query that is different than the first search query,” and “receiving, *subsequent to the first time period*, the first search query, and determining a plurality search results that are responsive to the first search query.” As another example, the cited references neither describe nor suggest “*identifying* a relationship between the first search query and the second search query, and *storing an indication of the relationship*.” As another example, the cited references

neither describe nor suggest “during the first time period, *tracking and storing user data associated with search results that are provided in response to the second query.*”

For at least these reasons, Applicants submit that new claim 59 is patentable over the references currently of record, and Applicants request that new claim 59 be allowed.

Conclusion

Applicants respectfully submit that pending claims 1, 3, 5-11, 13-16, 18-26, 53-57 and 59 are in condition for allowance and request that the Examiner allow them.

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to this amendment.

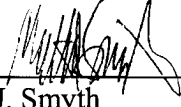
Applicant : Tong et al.
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Attorney's Docket No.: 16113-0323001 / GP-133-00-US

Submitted herewith is a Petition for Two-Month Extension of time and the corresponding fee. Please charge deposit account 06-1050 for the appropriate excess claims fees, which are believed to be \$ 840 (for four independent claims beyond those that have already been paid for). Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: MARCH 10, 2008



Matthew J. Smyth
Reg. No. 58,224

Fish & Richardson P.C.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696